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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 11646-2 (1986): Cane for Visually Handicapped, Part 2:
Folding Type [MHD 10: Medical Laboratory Instruments]

“ज्ञान से एक नये भारत का निर्माण”

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“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”



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Indian Standard

**SPECIFICATION FOR
CANE FOR VISUALLY HANDICAPPED
PART 2 FOLDING TYPE**

1. Scope — Specifies dimensional and other requirements for folding cane used as a probing device for the purpose of mobility by blind persons.

2. Shape and Dimensions — As shown in Fig. 1.

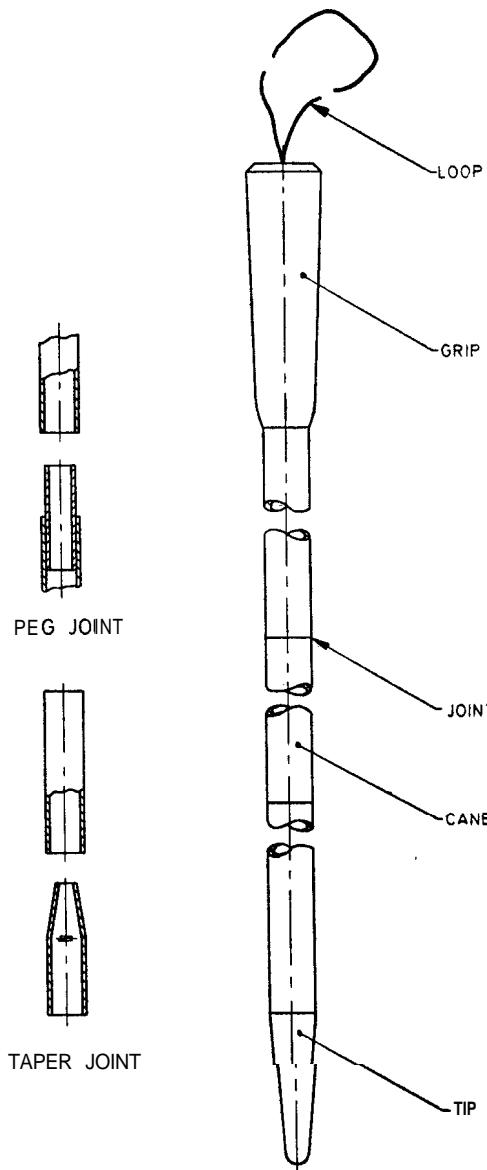


FIG. 1 CANE, FOLDING TYPE, TYPICAL

3. Material

3.1 Shaft/Tube — Aluminium or aluminium alloy or any other suitable material which shall be light conductive and durable.

3.2 *Grip* — Grip shall be made of rubber having slight roughness, plastic, nylon or any other material which is non-absorber of heat and moisture.

3.3 *Tip* — Tip shall be made of nylon, plastics, steel or any other suitable material. It shall be made detachable from the shaft. Tip shall be capable of giving auditory impulse.

3.4 *Coating* — The cane may be PVC coated to make it white. Coating shall be such that it shall not scrap or chip. The cane finish shall be elegant and reflective. The cane may also be provided with a fluorescent coating which can give luminosity in darkness.

3.5 *Inner Element* — Elastic with single cored or wrapped, plastics or nylon cord.

4. Construction

4.1 *Shaft* — Shaft shall be made of tube of high tensile strength and ductility. The wall thickness of the tubes shall be minimum of 1 mm and outside diameter of the tube at the centre shall be 12.5 mm minimum. The total length of the cane shall vary between 1 000 and 1 450 mm in steps of 50 mm. There may be 2 to 4 shafts which make it foldable.

4.2 *Grip* — The grip may preferably be made of rubber compound. It may be moulded as shown in Fig. 1. The moulded grip shall have broader end at the top and gradually tapering at the lower end. The grip shall have flat surface in one of the segment and the remaining portion may have a few (2 or 3) serrations for better grip. The weight of the grip shall be 70 to 90 g and length 175 to 225 mm. The grip shall be fixed on one end of the shaft with a strong adhesive. The hollowness may be filled in with a plastic button peg. The grip may have an elastic loop for handle at the top of 200 to 250 mm perimeter passing through a peg hole.

4.3 *Tip* — The tip may be made from suitable plastics as applicable to plastics for gear specified in IS : 7078-1973 'Specification for plastics used in instrument industry' or any other material having property of good auditory impulse. The length of the tip outside the cane shall be 30 to 50 mm. The tip may have a peg hole at one end which shall be fixed into the other end of the shaft by either inserting or screwing it into the tube. The diameter of the tip shall be 12.5 mm minimum, and may be half round at the bottom.

4.4 *Joints* — The joints shall be such that it shall be easily fittable after disassembling. The joints may be of taper type or peg type. In case of taper joint one end of the shaft is tapering and the other is done shaped. In case of peg type joint, either one end of the shaft is reduced in diameter by turning or a peg button is tightly fixed in the shaft to enable it to be fitted in the female end of the shaft. The male and female parts shall fit into each other firmly (see Fig. 3). The shaft shall remain attached to when a single or double elastic cord is passed through. The elastic cord shall be fixed at the grip and the other end at the peg hold at the tip.

5. *Workmanship and Finish* — The functioning of the cane shall be smooth. Sharp points, roughness and any projections shall be avoided.

6. Tests

6.1 *Endurance Test* — The folding cane shall be folded and unfolded manually or by mechanical means for 1 000 times. After the test the performance of the cane shall not be affected.

7. *Marking* — The cane shall be marked with the manufacturer's name, initials or recognized trademark, and with the total length of the cane below the grip.

7.1 *ISI Certification Marking* — Details available with the Indian Standards Institution.

8. *Packing* — As agreed to between the purchaser and the manufacturer.

E X P L A N A T O R Y N O T E

In the formulation of this standard considerable assistance has been provided by National Association for the Blind, Bombay.